

Amendments to the Specification:

Please replace the paragraph beginning on page 5, line 13, which starts with “In order that operation may be performed properly”, with the following amended paragraph:

In order that operation may be performed properly, the common rail includes a pressure sensor connected to an electronic central unit used as a computer and which provides the set current value to the electromagnet of the solenoid valve. ~~The invention will now be described in more detail, with reference to the appended figures wherein:~~

Please add the following new heading on page 5, immediately after line 17:

BRIEF DESCRIPTION OF THE DRAWINGS

Please add the following new paragraph on page 5, immediately after the new heading “BRIEF DESCRIPTION OF THE DRAWINGS” and before line 18:

The invention will now be described in more detail, with reference to the appended figures wherein:

Please add the following new heading on page 5, immediately before line 30:

DETAILED DESCRIPTION OF THE INVENTION

Please replace the paragraph beginning on page 5, line 30, which starts with “With reference to Fig. 1”, with the following amended paragraph:

With reference to Fig. 1, the solenoid valve (1) of the invention is positioned between the gasoline tank (2) of the vehicle and a high pressure pump (3) for supplying gasoline to the common rail (4). The latter feeds injectors (5) providing gasoline to the cylinders of the motor. The rail (4) is moreover provided with a pressure sensor (6) connected to an electronic central

unit (7) which notably provides a set current value to the electromagnet of the solenoid valve (1). Therefore operation is performed in a closed loop. The flap (8) controls a loop connecting the high pressure part of the circuit (downstream from the pump (3)) and the low pressure part of the circuit (upstream from said pump (3)). In fact this loop returns to the ~~outlet~~ inlet of the pump at the inlet of the solenoid valve (1) downstream from the fuel tank (2).

Please replace the paragraph beginning on page 6, line 8, which starts with “When overpressure is detected in the rail (4)”, with the following amended paragraph:

When overpressure is detected in the rail (4) by the pressure sensor (6), the electronic unit (7) sends a zero or low set current value so that the flap (8) may open under the effect of said overpressure. Gasoline is then sent back to the tank (2). The ~~discharge rate control~~ solenoid valve (1) and the flap (8) are in fact joined together in a single entity (E), which forms the discharge rate and pressure control solenoid valve according to the invention.

Please replace the paragraph beginning on page 7, line 7, which starts with “Thus, this part (29) includes”, with the following amended paragraph:

Thus, this part (29) includes an inlet orifice (30) immediately located under the seat (37) of the ~~[[bore]]~~ ball (28) and extended by a conduit (31) carrying the high pressure fluid. The sleeve (27) of the flap device as well as the part (29) is shown in more detail in Figs. 3 and 4, respectively. The sleeve (27) includes, in its face opposite the spool (18), a cylindrical housing (32) able to receive one of the ends of the spring (26). The diameter of this housing gradually narrows inwards, in order to fix the end of the spring (26). In the extension of the housing (32), channels (34 and ~~[[34']]]~~ 33) allow the fluid to pass through the sleeve (27). These channels, at least two in number, surround a cylindrical protrusion (35), the diameter of which is calculated for insertion into a conduit (36) of the part (29), in order to maintain pressure on the ball when it rests against its seat (37) (cf. Fig. 4). Routes (38 and 38') for discharging the fluid are positioned on either side of the conduit (36) and of the seat (37), made by means of a cylindrical milling cutter with a thickness less than that of the conduit (36). With the threading (39), it is possible to adjust the position of the part (29) to refine the operation of the flap device.

Please replace the paragraph beginning on page 7, line 23, which starts with “The seal of the different components is provided by”, with the following amended paragraph:

The seal of the different components is provided by O-rings distributed all around the liner (22). Operation of the assembly is more easily explained with reference to the diagrams of Figs. 5 and 6. In particular, its theoretical operation appears in Fig. 5. When the current is equal to zero, the force exerted by the spring (26) on the flap device and notably on the ball (28) allows pressure of the order of 20-30 bars to be contained in the rail (4). For a higher pressure, the flap opens and overpressure is discharged into the liner (22), towards the orifice (20) and the conduit (23). The discharge rate curve (C_2) actually shows that for this current value, there is theoretically no discharge rate between the feeding orifice (20) and the exhaust orifice (21). Taking into account the location of the peripheral recess (19), this lack of discharge rate is extended up to a value of about one ampere, following which the discharge rate increases linearly. Now, between zero and one ampere, and as the electromagnet control current intensity increases, the force exerted via the spring (26) on the flap device and consequently on the **ball** (28) also increases so that it may contain an increasingly large pressure in the high pressure part of the circuit (curve C_1). Within the scope of the invention, it is required that the rated operating pressure (120 bars on the figure) be reached for a current value less than the threshold value from which the discharge rate increases linearly (one ampere on curve C_2). With this condition, it is possible to control the idle discharge rate very accurately and with constant pressure.